# APPENDIX A

# KETS-DT

Engineering Statements



Engineering Statement to Support
Post DTV Transition Allotment Parameter Change
KETS Little Rock, AR
October 26, 2007

KETS Little Rock, AR analog channel 2, DTV channel 5 elected channel 7 for post transition operation. In that KETS certified that it will operate its post-transition DTV station with the facilities, as authorized by FCC File No. BMPEDT – 20020509AAQ its post transition allotment facility replicates on channel 7 the facility specified in the certification.

However, KETS wishes to utilize a less expensive omni-directional analog antenna for post transition operation instead of the directional replication pattern specified in the Appendix B post transition allotment and at the same time increase it power. This presents a problem in that predicted service contour of the proposed facility would not meet the FCC's proposed criteria that requires that for initial post transition operation the service contour cannot exceed that predicted for the allotted facility.

If KETS is required to keep its service contour inside the allotted contour then the power would need to be reduced to 321 watts if the non-directional antenna is to be used. At that power level the predicted service population would be 805,564 and the service area



would be 20,340.9 square kilometers as compared to the allotted facility that would have a predicted service population of 952,721 and an area of 30.372.6 square kilometers. Therefore, the service population would be reduced by 147,157 people (15.4%) and the service area would decrease by 10,031.7 square kilometers (33%).

A further analysis has been performed to determine the maximum power that could be utilized by KETS with a non-directional antenna without increasing the interference to other stations listed in the Appendix B allotment table. That analysis indicates that at an effective radiated power (ERP) of 26.73 kW KETS would cause less than 0.1% interference to any other allotment in Appendix B.

Therefore, in view of the fact that KETS would cause less than a de minimis amount of interference to any station listed in the Appendix B allotment table it is justified that KETS be permitted to amend it allotment parameters to specify a non-directional antenna with an ERP of up to 26.73 kW.

The above was prepared by:

William R. Meintel Partner, Meintel, Sgrignoli & Wallace

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Supplement to October 26, 2007
Engineering Statement to Support
Post DTV Transition Allotment Parameter Change
KETS Little Rock, AR
November 5, 2007

The previous engineering statement prepared on October 26, 2007 indicated that KETS DTV channel 7 Little Rock, AR could operate with an omni-directional antenna with an effective radiated power (ERP) of 26.73 kW without causing more than de minimis interference to other stations in the post transition DTV allotment table (Appendix B). However, it was noted that if KETS is required to keep its service contour inside the contour based on its Appendix B allotment then it would need to reduce power to 321 watts if it wishes to utilize the omni-directional facility discussed above.

To support the request for the facility noted above, an analysis was performed to assess the impact of this proposal on other stations. That analysis assessed its impact on other stations in Appendix B. The results of that analysis are summarized in an attached spreadsheet. As can be seen from the spreadsheet the proposed facility would cause essentially no new interference since interference caused to other stations is in all cases less than 0.1%.



Also attached are plots showing the predicted service contours of the allotted KETS facility compared to the proposed facility as well as the omni-directional facility at 321 watts that would be needed if the contour extent requirements must be met.

Therefore, in view of the fact that the proposed KETS facility would cause essentially no new interference to any station listed in the Appendix B allotment table, KETS should be permitted to amend its Appendix B allotment parameters to specify a non-directional antenna with an ERP of up to 26.73 kW.

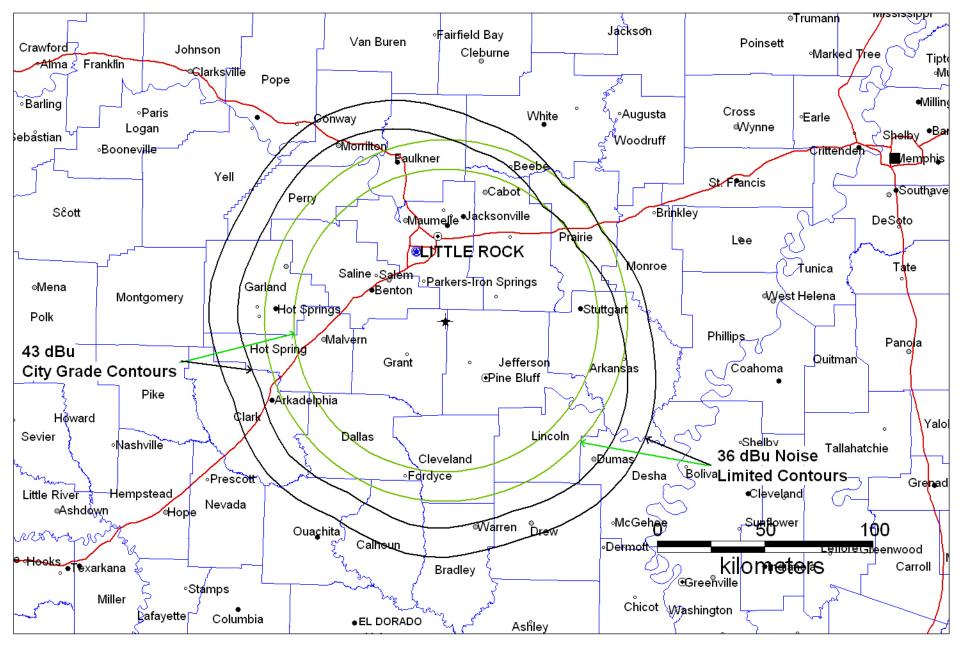
The above was prepared by:

William R. Meintel Partner, Meintel, Sgrignoli & Wallace

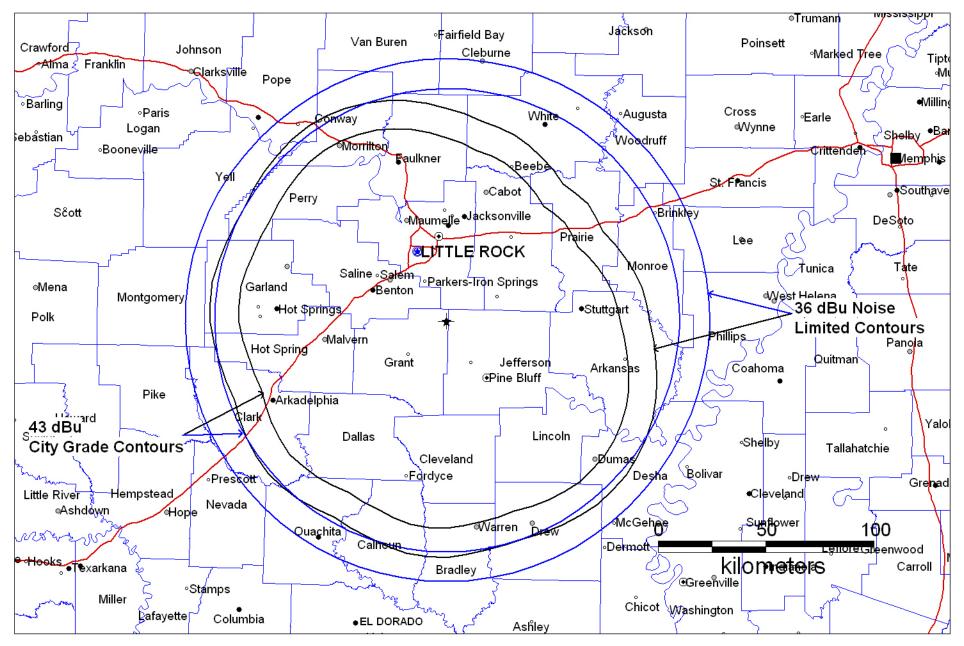
# Analysis Based on Post Transition Allotment Table (Appendix B) Proposed KETS Little Rock, AR DTV Channel 7 Omni-Directional ERP 26.73 kW Height of Radiation Center Above Mean Sea Level (RCAMSL) 631 m

### **Potentially Affected Stations**

Channel Call	City	State	Dist(km)	Predicted Service Population			
				Without KETS Proposal	With KETS Proposal	Loss	Percent Loss
7 KOAM-TV	PITTSBURG	KS	381.7	No interference caused			
7 WLBT	JACKSON	MS	300.6	727241	725607	501	0.0689
7 KLTV	TYLER	TX	349.5	762035	761713	322	0.0423
8 KAIT	JONESBORO	AR	198.6	689806	689711	95	0.0138



KETS Little Rock, AR - DTV Channel 7
Predicted Post Transition Service Contours
Allotted Facility (BLACK)
Omni-Directional @ 321 Watts (GREEN)



KETS Little Rock, AR - DTV Channel 7
Predicted Post Transition Service Contours
Allotted Facility (BLACK)
Omni-Directional @ 26.73 kW (BLUE)

# APPENDIX B

# KETZ-DT

Engineering Statements



# Engineering Statement to Support Post DTV Transition Allotment Parameter Change KETZ El Dorado, AR October 26, 2007

KETZ EI Dorado, AR has been allotted channel 10 for post DTV transition operation with a directional antenna pattern that matches the channel 12 facility granted to KETZ in a Rule Making proceeding. However, KETZ wishes to utilize an existing omnidirectional antenna located on the same tower for post transition operation instead of the directional replication pattern specified in the Appendix B post transition allotment. This presents a problem in that the power would need to be reduced below that of the allotted facility to meet the FCC's proposed criteria that requires that for initial post transition operation the service contour cannot exceed that predicted for the allotted facility.

In order to restrict the extent of the service contour to that of the allotted facility the maximum power that could be utilized with the proposed omni-directional antenna would be 135 watts. At that power level the predicted service population would be 338,080 as opposed to the predicted allotted facility service population of 442,886. This represents a predicted loss of service to 104,806 people or 23.7% of the allotted service. In addition, the area inside the predicted service contour would be reduced



from the allotted 26,324.5 square kilometers to 18,149.9 square kilometers for an overall loss of service to 8174.6 square kilometers or 31.1% of the area within the allotted contour.

If KETZ had been permitted to specify the proposed antenna during the channel election process it would have been able to operate with its currently allotted ERP of 6.0 kW and still meet the 0.1% DTV channel election criteria for allowable new interference to other stations. In view of this, KETZ should be permitted to amend the parameters of its allotted facility to specify an omni-directional antenna with a height above average terrain (HAAT) of 607 meters based on a radiation center above mean sea level (RCAMSL) of 638 m.

The above was prepared by:

William R. Meintel Partner, Meintel, Sgrignoli & Wallace



Supplement to October 26, 2007
Engineering Statement to Support
Post DTV Transition Allotment Parameter Change
KETZ El Dorado, AR
November 5, 2007

The previous engineering statement prepared on October 26, 2007 indicated that KETZ DTV channel 10 El Dorado, AR could operate at an effective radiated power (ERP) of 6 kW with an omni-directional antenna with a radiation center above mean sea level (RCAMSL) of 638 m without causing more than de minimis interference to other stations. However, it was noted that if KETZ is required to keep its service contour inside the contour based on its Appendix B allotment then it would need to reduce power to 135 watts if it wishes to utilize the omni-directional facility discussed above.

To support the request for the facility noted above, two analyses were performed to assess the impact of this proposal on other stations. The first was based on the FCC's DTV channel election methodology wherein the impact of the proposal was determined based on the existing environment with interference masking from both analog and digital operations being considered. The second analysis was based on assessing the impact on other stations in the post transition DTV allotment table (Appendix B).

The results of the first analysis indicated that the proposal would not cause more than the permitted 0.1% interference to other ultimately allotted stations. The second



analysis likewise indicates that any new interference caused to other stations in Appendix B would not exceed the 0.1% limit. A spreadsheet showing the results of the two analyses is attached.

Also attached are plots showing the predicted service contours of the allotted KETZ facility compared to the proposed facility as well as the omni-directional facility at 135 watts that would be needed if the contour extent requirements must be met.

As stated previously, it appears that KETZ should be granted its requested facility in that it does not pose any significant impact on any other allotted Appendix B facility.

The above was prepared by:

William R. Meintel Partner, Meintel, Sgrignoli & Wallace

# Analysis Based on FCC DTV Channel Election Methodology Proposed KETZ El Dorado, AR DTV Channel 10 Omni-Directional ERP 6 kW Height of Radiation Center Above Mean Sea Level (RCAMSL) 638 m

#### **Potentially Affected Stations**

Channel Call	City	State	Dist(km)	Predicted Service Population			
				Without KETZ Proposal	With KETZ Proposal	Loss	Percent Loss
10 KLFY-TV	LAFAYETTE	LA	306.4	No interference caused			
10 WMAB-TV	MISSISSIPPI STATE	MS	287.9	No interference caused			
10 NEW	MEMPHIS	TN	319.8	No interference caused			
11 KAQY	COLUMBIA	LA	113.7	673,658	673,138	520	0.0772

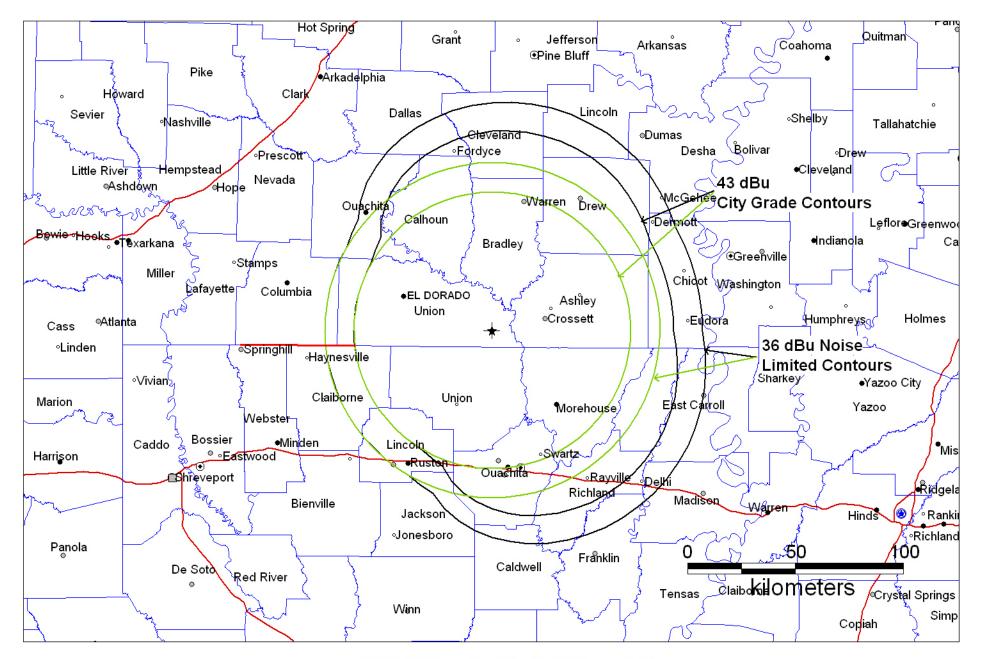
Analysis Based on Post Transition Allotment Table (Appendix B)

Proposed KETZ El Dorado, AR DTV Channel 10

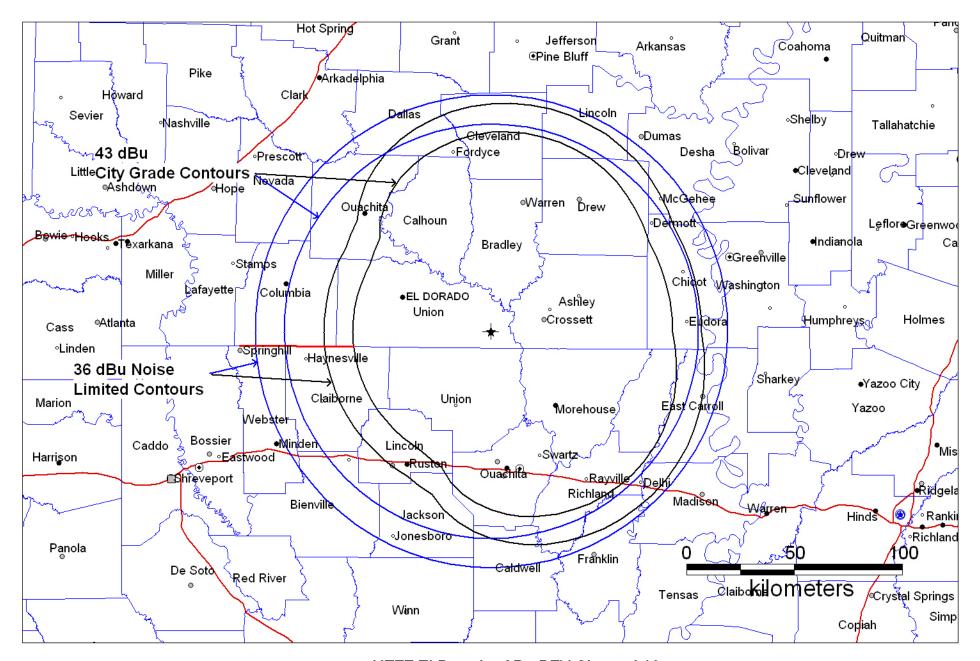
Omni-Directional ERP 6 kW Height of Radiation Center Above Mean Sea Level (RCAMSL) 638 m

#### **Potentially Affected Stations**

Channel Call	City	State	Dist(km)	Predicted Service Population			
				Without KETZ Proposal	With KETZ Proposal	Loss	Percent Loss
10 KLFY-TV	LAFAYETTE	LA	306.4	No interference caused			
10 WMAB-TV	MISSISSIPPI STATE	MS	287.9	370,957	370,636	321	0.0865
10 NEW	MEMPHIS	TN	319.8	1,299,978	1,299,942	36	0.0028
11 KAQY	COLUMBIA	LA	113.7	677,953	676,938	1,015	0.1497



KETZ EI Dorado, AR - DTV Channel 10
Predicted Post Transition Service Contours
Allotted Facility (BLACK)
Omni\_Directional @ 135 Watts and RCAMSL 638 m (GREEN)



KETZ EI Dorado, AR - DTV Channel 10
Predicted Post Transition Service Contours
Allotted Facility (BLACK)
Omni\_Directional @ 6 kW and RCAMSL 638 m (BLUE)

# APPENDIX C

# KEMV-DT

Engineering Statements



Engineering Statement to Support
Post DTV Transition Allotment Parameter Change
KEMV Mountain View, AR
October 26, 2007

KEMV Mountain View, AR elected to remain on its current DTV channel 13 for post DTV transition operation and utilize its currently licensed facility. That facility includes a directional antenna pattern and at an effective radiated power (ERP) of 4.05 kW. However, KEMV now wishes to change that facility to an omni-directional antenna and increase the power to 6.9 kW.

An analysis of the proposed new facility indicates that it will not cause an increase in interference in excess of 0.1% to any other station listed in the post DTV transition allotment table Appendix B. In view of that KEMV should be permitted to amend its allotment in Appendix B to specify a non-directional antenna with an ERP of 6.9 kW.

The above was prepared by:

William R. Meintel Partner, Meintel, Sgrignoli & Wallace

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Supplement to October 26, 2007
Engineering Statement to Support
Post DTV Transition Allotment Parameter Change
KEMV Mountain View, AR
November 5, 2007

The previous engineering statement prepared on October 26, 2007 indicated that KEMV DTV channel 13 Mountain View, AR could operate with an omni-directional antenna and an effective radiated power (ERP) of 6.9 kW without causing more than de minimis interference to other stations in the post transition DTV allotment table (Appendix B). This conclusion was based on an analysis of the proposed new facility that assessed its impact on other stations in Appendix B. The results of that analysis are summarized in an attached spreadsheet.

In addition, a plot is also attached showing the predicted service contours for the proposed facility compared to the allotted facility contained in Appendix B. The proposed facility would permit KEMV to significantly improve its service to the public in that the predicted service population would increase by 81,600 or 31.4% while not creating more than a de minimis amount of new interference.



In view of the above it appears that KEMV should be permitted to amend its allotment in Appendix B to specify a non-directional antenna with an ERP of 6.9 kW in that it would cause no significant interference increase to any other station in Appendix B.

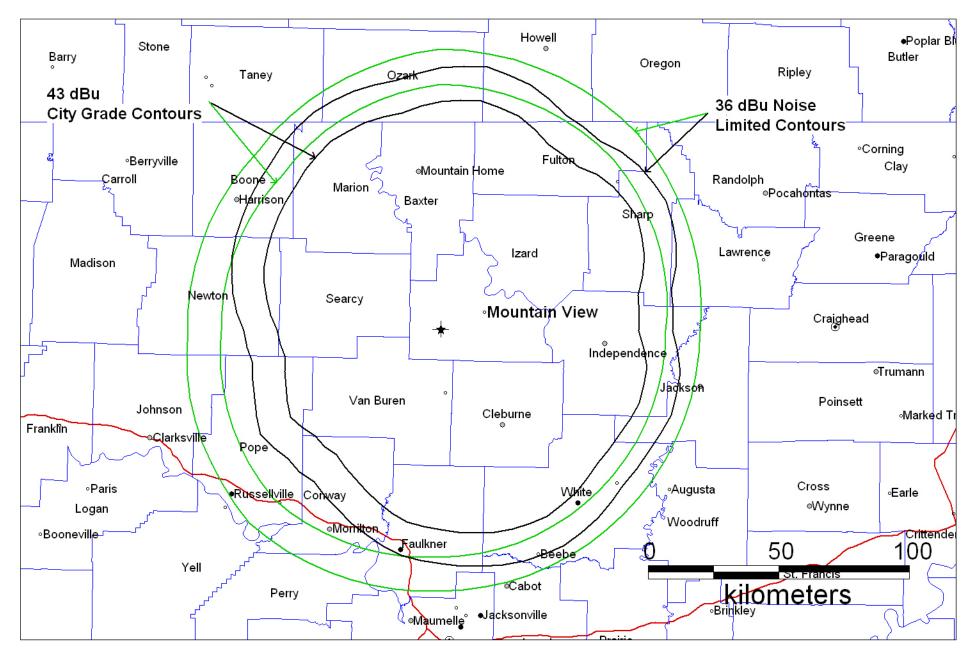
The above was prepared by:

William R. Meintel Partner, Meintel, Sgrignoli & Wallace

# Analysis Based on Post Transition Allotment Table (Appendix B) Proposed KEMV Mountain View, AR DTV Channel 13 Omni-Directional ERP 6.9 kW Height of Radiation Center Above Mean Sea Level (RCAMSL) 734 m

### **Potentially Affected Stations**

Channel Call	City	State	Dist(km)	Predicted Service Population			
				Without KEMV Proposal	With KEMV Proposal	Loss	Percent Loss
12 KTHV	LITTLE ROCK	AR	114.3	1,128,683	1,126,991	1,692	0.1499
13 KETG	ARKADELPHIA	AR	224.7	299,008	298,651	357	0.1194
13 KFJX	PITTSBURG	KS	266.6	303,567	303,437	130	0.0428
13 KLTM-TV	MONROE	LA	402.6	No interference caused			
13 WHBQ-TV	MEMPHIS	TN	232.4	1,453,475	1,452,646	829	0.0570



KEMV Mountain View, AR - DTV Channel 13
Predicted Post Transition Service Contours
Allotted Facility (BLACK)
Proposed Facility Omni-Directional at 6.9 kW (GREEN)